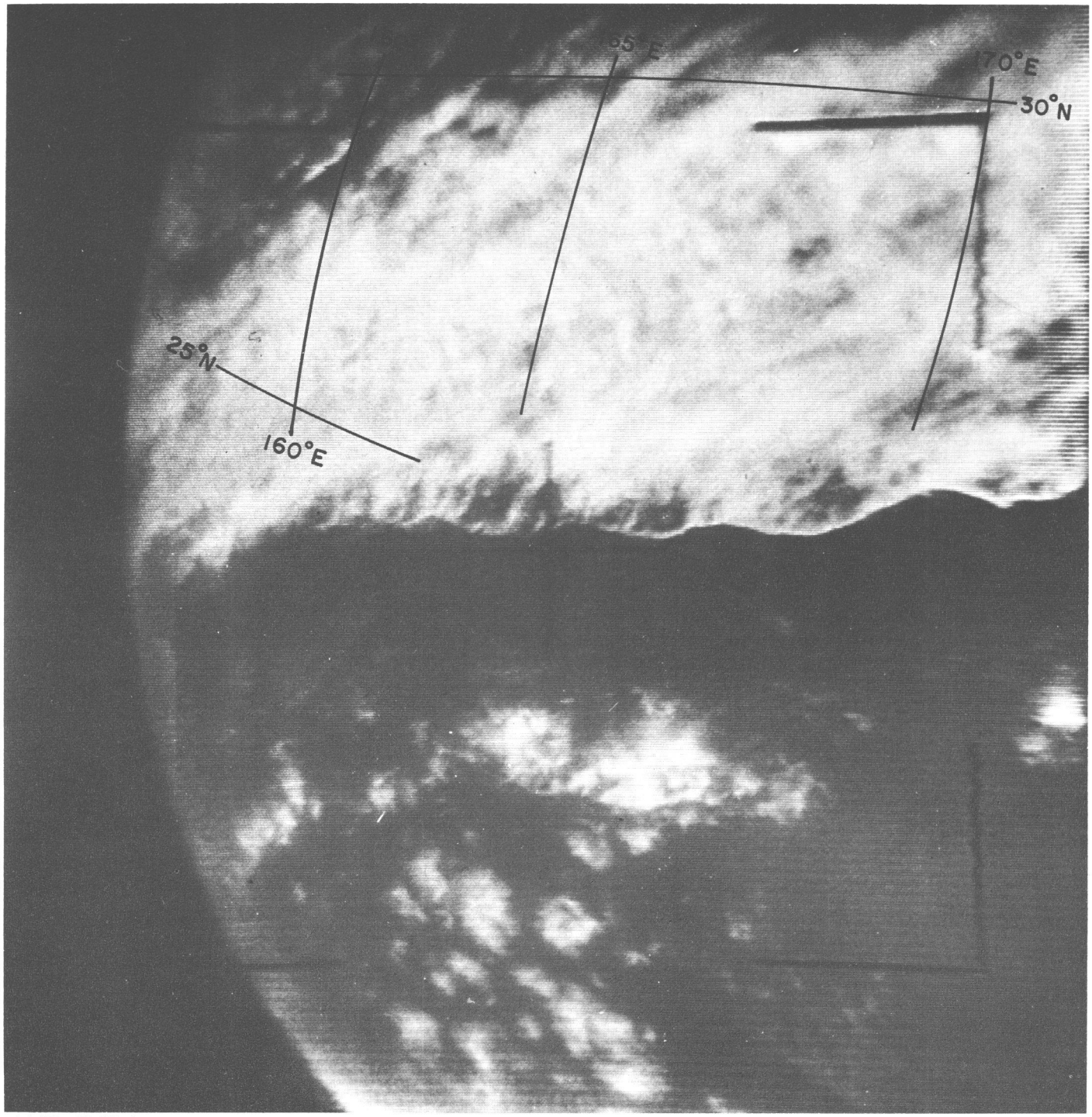
PICTURE OF THE MONTH



This broad frontal cloud band over the low latitudes of the Western North Pacific was photographed by TIROS IX (pass 627/624, camera 2, frame 15) on March 15, 1965, at 0105 GMT. The picture was received at Wallops Island, Va., via tape mode. A partial latitude-longitude grid is superimposed.

The striking feature is the well-defined, wavy rope-like appearance of the clouds along the southern boundary of the cloud band. It is believed that the surface position of the slowly-moving cold front is slightly north of the rope-like edge, but near the southern boundary of the band. The clouds are probably predominantly at low and middle levels, but some cirrus may also exist.

Similar rope-like cloud features associated with extensive cloud masses have been seen several times over subtropical ocean areas and are most often along the southern edge of a cold-frontal band as is the case here. No such feature has been observed at latitudes higher than 40° nor with fast-moving fronts.

The broad dark zone immediately south of the wavy edge is nearly cloudless and implies subsidence in the middle and low troposphere, while the bright wavy cloud line represents a very narrow line of upward motion. Clearly, the conventional frontal models cannot account for such a mesoscale pattern.